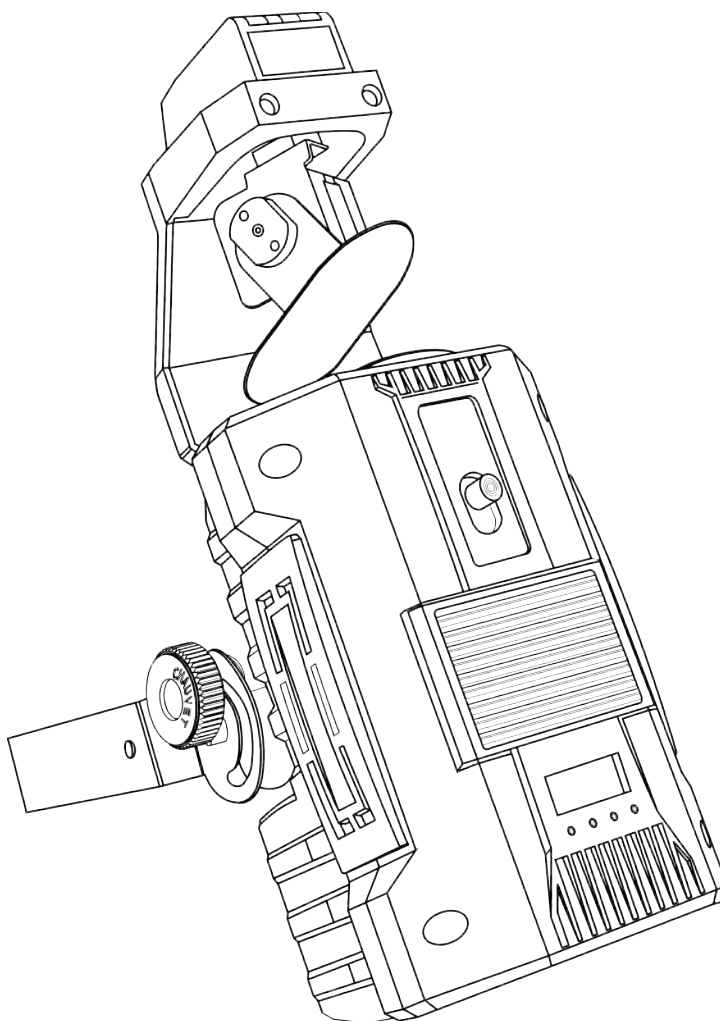


# INTIMIDATOR<sup>TM</sup>

## SCAN LED 200

### *User Manual*



**CHAUVET<sup>®</sup>**

*Value • Innovation • Performance*

*It's Green Thinking*

---

# TABLE OF CONTENTS

<b>1. Before you Begin.....</b>	<b>3</b>
What is Included.....	3
Unpacking Instructions .....	3
Text Conventions .....	3
Icons .....	3
Document Information .....	3
Product at a Glance.....	4
Safety Notes .....	4
<b>2. Introduction.....</b>	<b>5</b>
Product Overview.....	5
Product Dimensions .....	6
<b>3. Setup .....</b>	<b>7</b>
AC Power.....	7
<i>Fuse Replacement.....</i>	<i>7</i>
<i>Power Linking.....</i>	<i>8</i>
Mounting.....	9
<i>Orientation.....</i>	<i>9</i>
<i>Rigging.....</i>	<i>9</i>
<b>4. Operation .....</b>	<b>10</b>
Control Panel Operation.....	10
Menu Map.....	10
DMX Operation .....	11
<i>Starting Address .....</i>	<i>11</i>
Standalone Operation.....	12
<i>Master/Slave Mode (Sound-Active, Auto Mode) .....</i>	<i>12</i>
<i>Automatic-Slow.....</i>	<i>12</i>
<i>Automatic-Fast.....</i>	<i>12</i>
<i>Sound-Active .....</i>	<i>12</i>
Service Mode .....	13
<i>Hidden Menu Map.....</i>	<i>13</i>
DMX Channel Assignments and Values.....	14
<i>8-Channel Mode .....</i>	<i>14</i>
<i>5-Channel Mode .....</i>	<i>16</i>
<b>5. Technical Information .....</b>	<b>17</b>
General Maintenance .....	17
General Troubleshooting .....	18
Returns Procedure .....	19
Claims.....	19
Contact Information.....	19
DMX Primer .....	20
<i>Starting Address .....</i>	<i>20</i>
<i>Fixture Linking (Daisy Chain).....</i>	<i>20</i>
<i>DMX Cabling .....</i>	<i>21</i>
<b>6. Technical Specifications .....</b>	<b>22</b>

# 1. BEFORE YOU BEGIN

## What is Included

- 1 x Intimidator™ Scan LED 200
- 1 x Mounting bracket kit
- 1 x Power Cord
- 1 x Warranty Card
- 1 x User Manual

## Unpacking Instructions




Immediately upon receiving this product, carefully unpack it and check the container in which you received it. Make sure that you have received all the parts indicated above and that they are all in good condition. If the material inside the container (this product and any other accessory included with it) appears damaged from shipping, or if the container shows signs of mishandling, notify the shipper immediately. In addition, retain the container and all the packing material for inspection.

See the *Claims* section in the “*Technical Information*” chapter.

## Text Conventions

Convention	Meaning
<Menu>	A key to be pressed on the fixture's control panel
1~512	A range of values
50/60	A set of values of which only one can be chosen
<b>Settings</b>	A menu option not to be modified (for example, showing the operating mode/current status)
<b>Menu &gt; Settings</b>	A sequence of menu options to be followed
<b>ON</b>	A value to be entered or selected

## Icons

Icon	Meaning
	This paragraph contains critical installation, configuration, or operation information. Failure to comply with this information may render the fixture partially or completely inoperative, cause damage to the fixture, or cause harm to the user.
	This paragraph contains important installation or configuration information. Failure to comply with this information may prevent the fixture from functioning correctly.
	This paragraph reminds you of useful, although not critical, information.

## Document Information

The information and specifications contained in this document are subject to change without notice. CHAUVET® assumes no responsibility or liability for any errors or omissions that may appear in this manual.

© Copyright 2011 CHAUVET®. All rights reserved

Printed in P.R.C.

Electronically published by CHAUVET® in the United States of America

Author	Editor	Manager	PD Manager
A. Chiappone	R. Jones	A. Reiss	F. Sellers

---

## Product at a Glance

Use on Dimmer	X	Auto Programs	P
Outdoor Use	X	Auto-ranging Power Supply	P
Sound Activated	P	Replaceable Fuse	P
DMX	P	User Serviceable	X
Master/Slave	P	Duty Cycle	X

## Safety Notes



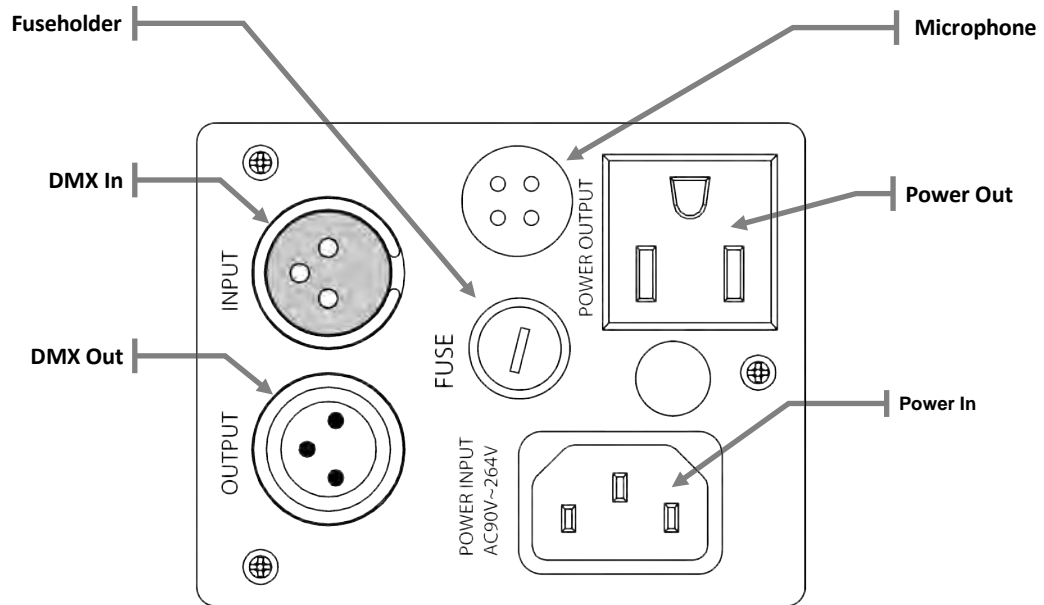
**Please read the following notes carefully because they include important safety information about the installation, usage, and maintenance of this product.**

- Keep this User Manual for future consultation. If you sell this product to another user, be sure that they also receive this document.
- Always make sure that the voltage of the outlet to which you are connecting this product is within the range stated on the decal or rear panel of the fixture.
- This product is for indoor use only! To prevent risk of fire or shock, do not expose this fixture to rain or moisture.
- Make sure there are no flammable materials close to the unit while operating.
- Always install this product in a location with adequate ventilation, at least 20 in (50 cm) from adjacent surfaces.
- Be sure that no ventilation slots on the unit's housing are blocked.
- Always disconnect this product from the power source before cleaning it or replacing the fuse.
- Make sure to replace the fuse with another of the same type and rating.
- If mounting this product overhead, always secure it to a fastening device using a safety cable.
- The maximum ambient temperature (Ta) is 104° F (40° C). Do not operate this product at higher temperatures.
- In the event of a serious operating problem, stop using the unit immediately.
- Never try to repair this product. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center.
- Never connect this product to a dimmer pack.
- Make sure the power cord is not crimped or damaged.
- Never disconnect the power cord by pulling or tugging on the cord.
- Never carry a fixture from the power cord or any moving part. Always use the mounting bracket or the handles.
- Always avoid direct eye exposure to the light source when this fixture is on.

---

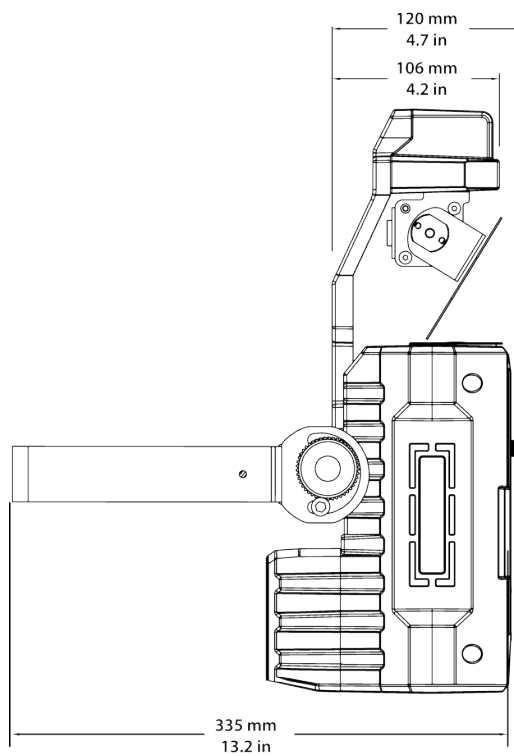
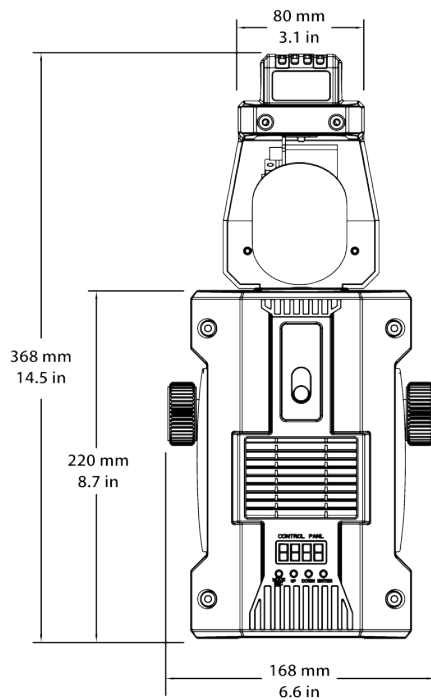
## 2. INTRODUCTION

### Product Overview



---

## Product Dimensions



---

## 3. SETUP

### AC Power

This product has an auto-ranging power supply and it can work with an input voltage range of 100~240 VAC, 50/60 Hz.

To determine the power requirements for a particular fixture, see the label affixed to the back plate of the fixture or refer to the fixture's specifications chart. A fixture's listed current rating indicates its average current draw under normal conditions.



**Always connect this product to a protected circuit (circuit breaker or fuse), making sure that it has an appropriate electrical ground to avoid the risk of electrocution or fire.**



**Never connect this product to a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel serves only as a 0 to 100% switch.**

### *Fuse Replacement*



**Disconnect this product from the power outlet before replacing the fuse.**

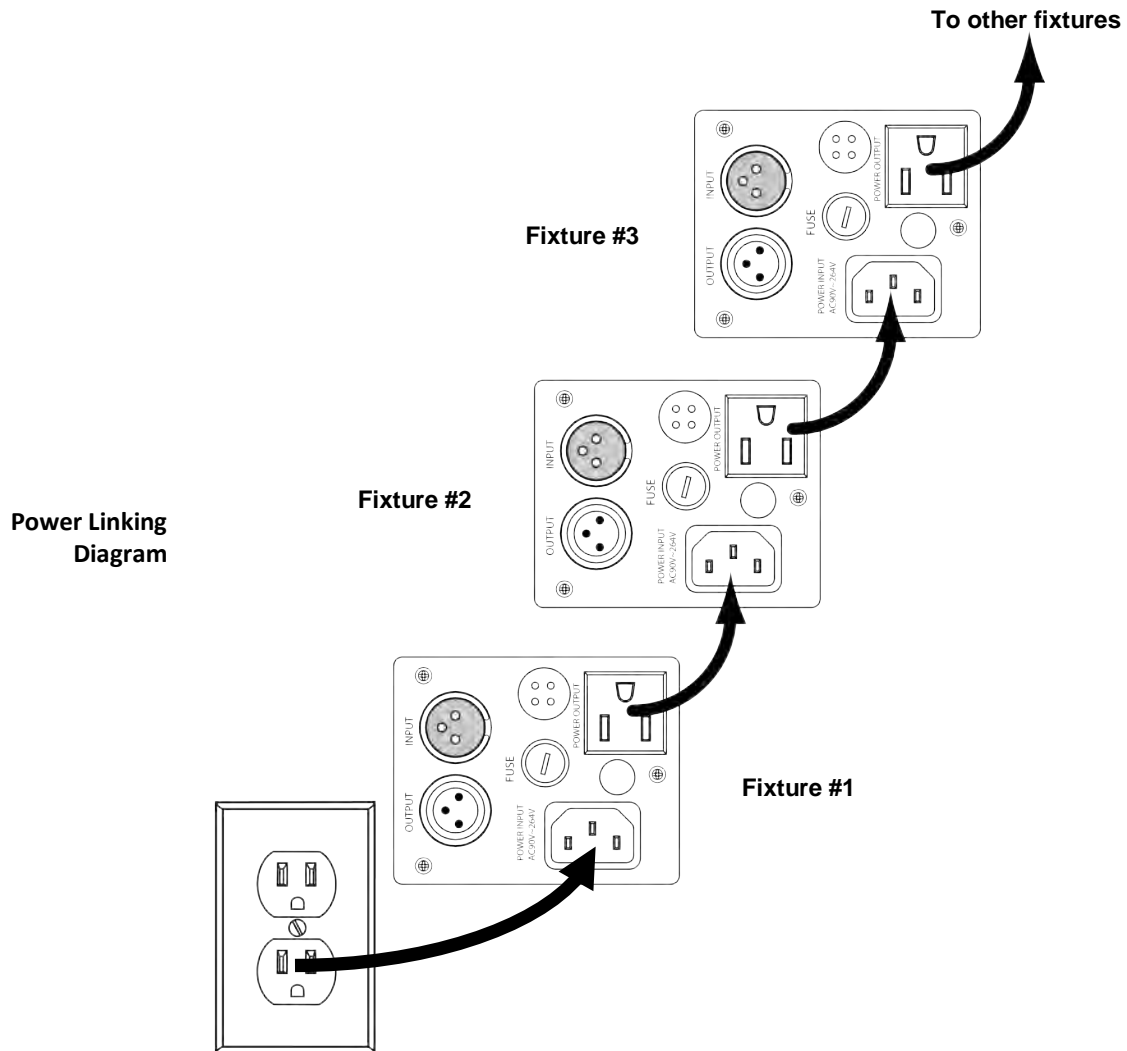
- 1) Disconnect the fixture from the power outlet.
- 2) With a Phillips #2 head screwdriver, unscrew the fuse holder cap from its housing.
- 3) Remove the blown fuse and replace it with a good fuse of the same type and rating (F 3.15 A @ 250 V).
- 4) Screw the fuse holder cap back in its place and reconnect power.



**Always replace a blown fuse with a good fuse of the same type and rating.**

## Power Linking

This fixture provides power linking via the Edison outlet located in the bottom of the unit. Please see the diagram below for further explanation.



You can power link up to 8 Intimidator™ Scan LED 200 units on 120 VAC.



The power linking diagram shown above corresponds to the North American version of this product **ONLY!** If using this product in other markets, you must consult with the local CHAUVET® distributor as power linking connectors and requirements may differ in your country or region.



---

## Mounting

### Orientation

The Intimidator™ Scan LED 200 may be mounted in any position, provided there is adequate room for ventilation around it.

### Rigging

Before deciding on a location for this product, always make sure that it will be easy to access the unit for maintenance and programming purposes.

Make sure that the structure or surface onto which you are mounting this product can support its weight. Please see the *Technical Specifications* section of this manual for weight information.

When mounting this product overhead, always use a safety cable. Mount the fixture securely to a rigging point, whether an elevated platform or a truss.

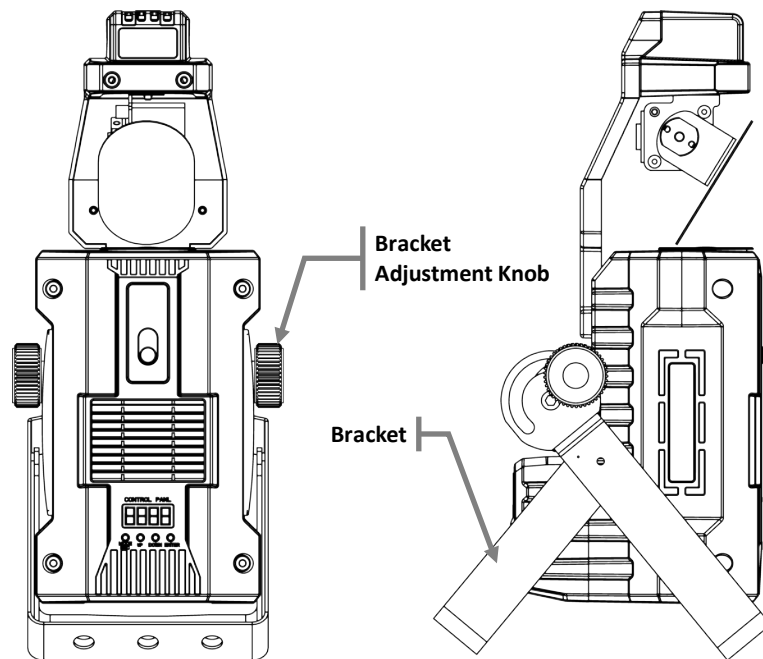
When rigging this product onto a truss, you should use a mounting clamp of appropriate weight capacity. The bracket has a 13 mm hole, which is appropriate for this purpose.

When power linking multiple fixtures, you must always consider the length of the power linking cable and mount the fixtures close enough for the cable to reach them.

The bracket knobs allow for directional adjustment when aiming the fixture to the desired angle. Loosen or tighten the bracket knobs using only your bare hands. Using tools could damage the knobs.

The double bracket yoke/mounting brackets also serve as floor supports or surface mounting. When mounting this fixture on the floor, make sure that the fixture and its cables are away from people and vehicles.

Mounting Diagram

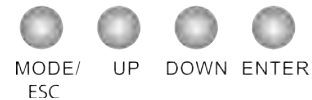


## 4. OPERATION

### Control Panel Operation

To access the control panel functions, use the four buttons located underneath the display.

Button	Function
<MODE/ESC>	Press to find an operation mode or to back out of the current menu option
<UP>	Press to scroll up the list of options or to find a higher value
<DOWN>	Press to scroll down the list of options or to find a lower value
<ENTER>	Press to activate a menu option or a selected value



### Menu Map

Menu	Selection 1	Selection 2	Description
DMX Address	<b>d001–512</b>		DMX starting address
Standalone Mode	<b>SLAv</b>	<b>Son</b>	Standalone: Slave receive mode
	<b>nStS</b>	<b>SrUn</b>	Standalone: sound-active
	<b>nAFA</b>	<b>FASt</b>	Standalone: fast
	<b>nASL</b>	<b>SLoU</b>	Standalone: slow
Pan Invert	<b>PAn</b>		Normal pan
	<b>rPAn</b>		Pan invert
Tilt Invert	<b>tit</b>		Normal tilt
	<b>rtit</b>		Tilt invert
Display Invert	<b>dis</b>		Normal display
	<b>rdid</b>		Invert the display
Personality	<b>8CH</b>		8-channel personality
	<b>5CH</b>		5-channel personality
Reset	<b>rESt</b>		Reset all motors to correct any errors with motors misaligning during operation
Load Default	<b>LoAd</b>		Load all settings back to the factory default

---

## DMX Operation

Set this product in DMX mode to control it with a DMX controller.

- 1) Connect this product to a suitable power outlet.
- 2) Turn this product on.
- 3) Connect a DMX cable from the DMX output of the DMX controller to the DMX input socket of this product.

### Starting Address

When selecting a starting DMX address, always consider the number of DMX channels the selected DMX mode uses. If you choose a starting address that is too high, you could restrict the access to some of the fixture's channels.

The Intimidator™ Scan LED 200 uses up to 8 DMX channels in its 8-channel DMX mode, which defines the highest configurable address to 505.

If you are not familiar with the DMX protocol, you may refer to the “DMX Primer” section in the *“Technical Information”* chapter.

To select the starting address, do the following:

- 1) Press **<MODE/ESC>** until **d\*\*\*** appears on the LED screen.
- 2) Using **<UP>** and **<DOWN>**, select the starting address (**001~512**).
- 3) Press **<ENTER>**.
- 4) Press **<MODE/ESC>** until one of the DMX personalities appears on the LED screen (**8-CH, 5-CH**).
- 5) Using **<UP>** and **<DOWN>**, select the desired DMX personality.
- 6) Press **<ENTER>**.



**Only connect 32 fixtures to a single DMX daisy chain!**

---

## Standalone Operation

### ***Master/Slave Mode (Sound-Active, Auto Mode)***

This mode allows a single unit, the master, to operate in one of the standalone modes, while one or more fixtures, slaves, synchronize their responses to the master.

Master:

The master fixture may be set in any of the STANDALONE modes: sound-active, fast, or slow.

Slave:

- 1) Press **<MODE/ESC>** until one of the standalone modes appears on the LED screen (**SLAu**, **nStS**, **nAFA**, **nASL**).
- 2) Using **<UP>** and **<DOWN>**, select **SLAu**.
- 3) Press **<ENTER>**.



**Only connect 32 fixtures to a single DMX daisy chain!**

### ***Automatic-Slow***

This fixture has a preprogrammed chase that will operate in a preprogrammed, slow playback speed.

Access this mode via the control panel on the front of the fixture. Please see the instructions below for further explanation.

- 1) Press **<MODE/ESC>** until one of the standalone modes appears on the LED screen (**SLAu**, **nStS**, **nAFA**, **nASL**).
- 2) Using **<UP>** and **<DOWN>**, select **nASL**.
- 3) Press **<ENTER>**.

### ***Automatic-Fast***

This fixture has a preprogrammed chase that will operate in a preprogrammed, fast playback speed.

Access this mode via the control panel on the front of the fixture. Please see the instructions below for further explanation.

- 1) Press **<MODE/ESC>** until one of the standalone modes appears on the LED screen (**SLAu**, **nStS**, **nAFA**, **nASL**).
- 2) Using **<UP>** and **<DOWN>**, select **nAFA**.
- 3) Press **<ENTER>**.

### ***Sound-Active***

This fixture has a preprogrammed, sound triggered chase.

Access this via the control panel on the front of the fixture. Adjust the microphone sensitivity from the control panel. Please see the chart below for further explanation.

- 1) Press **<MODE/ESC>** until one of the standalone modes appears on the LED screen (**SLAu**, **nStS**, **nAFA**, **nASL**).
- 2) Using **<UP>** and **<DOWN>**, select **nStS**.
- 3) Press **<ENTER>**.



**The fixture will only respond to the low frequencies of the music (bass and drums).**

---

## Service Mode

### *Hidden Menu Map*

This fixture has a hidden menu. The purpose of this menu is to adjust the home position (electronic adjustment) of the attributes listed below.

Main Function	Selection	Instruction
P128	000~255	Adjustment for pan
t128	000~255	Adjustment for tilt
9128	000~255	Adjustment for the gobo wheel
C128	000~255	Adjustment for the color wheel
H128	000~255	Adjustment for pan
Y128	000~255	Adjustment for tilt

Please see the instructions below to access this hidden menu:

- 1) Press **< MODE/ESC >** for at least 10 seconds.
- 2) Using **<UP/DOWN>**, enter the following pass code: **"2323"**.
- 3) Press **<UP>** to change the blinking digit in ascending order, and press **<DOWN>** to move on to the next digit.
- 4) Press **<ENTER>**.



**This mode will be automatically terminated after 15 seconds of being idle.**

## DMX Channel Assignments and Values

### 8-Channel Mode

Channel	Function	Value	Setting
1	Pan	000 ◊ 255	0°~180°
2	Tilt	000 ◊ 255	0°~90°
3	Color	000 ◊ 007 008 ◊ 015 016 ◊ 023 024 ◊ 031 032 ◊ 039 040 ◊ 047 048 ◊ 055 056 ◊ 063 064 ◊ 071 072 ◊ 079 080 ◊ 087 088 ◊ 095 096 ◊ 103 104 ◊ 111 112 ◊ 119 120 ◊ 127 128 ◊ 191 192 ◊ 255	Open (white) Dark Blue Yellow Pink Green Red Blue Salmon Pink White/dark blue Dark blue/yellow Yellow/pink Pink/green Green/red Red/blue Blue/salmon pink Salmon pink/white Rotate clockwise (slow ~ fast) Rotate counter-clockwise (slow ~ fast)
4	Shutter	000 ◊ 003 004 ◊ 007 008 ◊ 215 216 ◊ 255	Closed Open Strobe (slow ~ fast) Open
5	Dimmer	000 ◊ 255	0%~100%
6	Gobo Wheel	000 ◊ 007 008 ◊ 015 016 ◊ 023 024 ◊ 031 032 ◊ 039 040 ◊ 047 048 ◊ 055 056 ◊ 063 064 ◊ 071 072 ◊ 079 080 ◊ 087 088 ◊ 095 096 ◊ 103 104 ◊ 111 112 ◊ 119 120 ◊ 127 128 ◊ 191 192 ◊ 255	Open Gobo 1 Gobo 2 Gobo 3 Gobo 4 Gobo 5 Gobo 6 Gobo 7 Gobo 7 shake, fast to slow Gobo 6 shake, fast to slow Gobo 5 shake, fast to slow Gobo 4 shake, fast to slow Gobo 3 shake, fast to slow Gobo 2 shake, (fast ◊ slow) Gobo 1 shake, (fast ◊ slow) Open Gobo scroll: Clockwise rotation Gobo scroll: Counter-clockwise rotation



1



2



3



4



5



6



7

Continues on the next page

Continued from previous page

**8-Channel  
Mode (Cont.)**

Channel	Function	Value	Setting
7	Function	000 ó 007	No function
		008 ó 015	Pan/tilt move-in-black
		016 ó 023	Pan/tilt move-in-black (disable)
		024 ó 031	Color wheel move-in-black
		032 ó 039	Color wheel move-in-black (disabled)
		040 ó 047	Gobo wheel move-in-black
		048 ó 055	Gobo wheel move-in-black (disabled)
		056 ó 087	No Function
		088 ó 095	All movement move-in-black (disabled)
		096 ó 103	Reset pan/tilt
		104 ó 111	No Function
		112 ó 119	Reset color wheel
		120 ó 127	Reset gobo wheel
		128 ó 151	No Function
		152 ó 159	Reset all
		160 ó 255	No function
8	Movement Macros	000 ó 007	No function
		008 ó 023	Automatic 1
		024 ó 039	Automatic 2
		040 ó 055	Automatic 3
		056 ó 071	Automatic 4
		072 ó 087	Automatic 5
		088 ó 103	Automatic 6
		104 ó 119	Automatic 7
		120 ó 135	Automatic 8
		136 ó 151	Sound 1
		152 ó 167	Sound 2
		168 ó 183	Sound 3
		184 ó 199	Sound 4
		200 ó 215	Sound 5
		216 ó 231	Sound 6
		232 ó 247	Sound 7
		248 ó 255	Sound 8

## 5-Channel Mode

Channel	Function	Value	Setting
1	Pan	000 ó 255	0°~180°
2	Tilt	000 ó 255	0°~90°
3	Color	000 ó 007 Open (white) 008 ó 015 Dark Blue 016 ó 023 Yellow 024 ó 031 Pink 032 ó 039 Green 040 ó 047 Red 048 ó 055 Blue 056 ó 063 Salmon Pink 064 ó 071 White/dark blue 072 ó 079 Dark blue/yellow 080 ó 087 Yellow/pink 088 ó 095 Pink/green 096 ó 103 Green/red 104 ó 111 Red/blue 112 ó 119 Blue/salmon pink 120 ó 127 Salmon pink/white 128 ó 191 Rotate clockwise (slow ~ fast) 192 ó 255 Rotate counter-clockwise (slow ~ fast)	
4	Shutter	000 ó 003 Closed 004 ó 007 Open 008 ó 215 Strobe (slow ~ fast) 216 ó 255 Open	
5	Gobo Wheel	000 ó 007 Open 008 ó 015 Gobo 1 016 ó 023 Gobo 2 024 ó 031 Gobo 3 032 ó 039 Gobo 4 040 ó 047 Gobo 5 048 ó 055 Gobo 6 056 ó 063 Gobo 7 064 ó 071 Gobo 7 shake, fast to slow 072 ó 079 Gobo 6 shake, fast to slow 080 ó 087 Gobo 5 shake, fast to slow 088 ó 095 Gobo 4 shake, fast to slow 096 ó 103 Gobo 3 shake, fast to slow 104 ó 111 Gobo 2 shake, (fast ó slow) 112 ó 119 Gobo 1 shake, (fast ó slow) 120 ó 127 Open 128 ó 191 Gobo scroll: Clockwise rotation 192 ó 255 Gobo scroll: Counter-clockwise rotation	



1



2



3



4



5



6



7



---

## 5. TECHNICAL INFORMATION

### General Maintenance

Dust build up reduces light output performance and can cause overheating. This can lead to reduction of the light source's life or mechanical wear. To maintain optimum performance and minimize wear, you should clean your lighting fixtures at least twice a month. However, be aware that usage and environmental conditions could be contributing factors to increase the cleaning frequency.

To clean this fixture, follow the instructions below:

- Unplug the fixture from power.
- Wait until the fixture is cold.
- Use a vacuum (or dry compressed air) and a soft brush to remove dust collected on the external surface/vents and reachable internal components.
- Clean the mirror and lens with a mild soap solution, ammonia-free glass cleaner, or isopropyl alcohol.
- Apply the solution directly to a soft, lint free cotton cloth or a lens cleaning tissue.
- Softly drag any dirt or grime to the outside of the mirror and lens.
- Gently polish the mirror and lens until they are free of haze and lint.
- When cleaning the movable mirror, you should keep the contact with the mirror's surface to a minimum to avoid scratching or damaging it.



**Always dry the mirror and lens carefully after cleaning them.**



**Do not spin the cooling fan/fans using compressed air because you could damage it/them.**

## General Troubleshooting

Symptom	Possible Cause	Possible Action
Circuit breaker or fuse keeps blowing	• Excessive load on the circuit	• Make sure that the total load does not exceed 80% of the breaker or fuse nominal current
	• Short circuit along the power lines	• Check the power lines and power cords
Product does not power up	• No energy on power outlet	• Check power outlet • Change to another outlet
	• Loose or damaged power cord	• Check the power cord
	• Blown fuse	• Replace blown fuse with a good one of the same type and rating
	• Internal problem	• Send product for repair
Fixture does not respond to DMX	• Wrong starting address on the fixture	• Set the correct starting address on the fixture • Use the right fader(s) on the controller
	• Wrong DMX personality on the fixture	• Set the correct DMX fixture's personality • Assign the faders accordingly
	• Wrong polarity setting on the DMX controller	• Change the signal polarity on the controller
	• Loose or damaged DMX cable	• Check the DMX cable before the faulty unit
	• Internal problem	• Send product for repair
Intermittent DMX Problems	• Signal cables are not DMX compatible	• Replace non DMX cables with true DMX cables
	• Interference with AC or radio signals	• Keep DMX cables away from AC wires or radio equipment
	• DMX cable too long	• Install an optically coupled DMX amplifier right before the fixture with intermittent problems
	• Too many fixtures connected	• Install an optically coupled DMX amplifier after unit #32
	• Terminator not connected	• Install a terminator, as indicated in the "DMX Primer" section.



**If you still experience problems after trying the above solutions, contact CHAUVET® Technical Support.**

---

## Returns Procedure

The user must send the merchandise prepaid, in the original box, and with its original packing and accessories. CHAUVET® will not issue call tags.

Call CHAUVET® and request a Return Merchandise Authorization (RMA) number before shipping the fixture. Be prepared to provide the model number, serial number, and a brief description of the cause for the return.

The user must clearly label the package with a Return Merchandise Authorization (RMA) number. CHAUVET® will refuse any product returned without an RMA number.



**DO NOT write the RMA number directly on the box. Instead, write it on a properly affixed label.**

Once you have received the RMA number, please include the following information on a piece of paper inside the box:

- Your name
- Your address
- Your phone number
- The RMA number
- A brief description of the problem

Be sure to pack the fixture properly. Any shipping damage resulting from inadequate packaging will be the customer's responsibility. As a suggestion, proper UPS packing or double-boxing is always a safe method to use.



**CHAUVET® reserves the right to use its own discretion to repair or replace returned product(s).**

## Claims

The carrier is responsible for any damage incurred during shipping to this product or any part that shipped with it. Therefore, if the received merchandise appears to have damages caused during shipping, the customer must submit the damage report and any related claims with the carrier, not CHAUVET®. The customer must submit the report upon reception of the damaged merchandise. Failure to do so in a timely manner may invalidate the customer's claim with the carrier.

For other issues such as missing components or parts, damage not related to shipping, or concealed damage, the customer must make claims to CHAUVET® within seven (7) days of receiving the merchandise.

## Contact Information

### World Headquarters

CHAUVET®

#### General Information

Address: 5200 NW 108th Avenue  
Sunrise, FL 33351  
Voice: (954) 929-1115  
Fax: (954) 929-5560  
Toll free: (800) 762-1084

#### Technical Support

Voice: (954) 929-1115 (Press 4)  
Fax: (954) 756-8015  
Email: tech@chauvetlighting.com

#### World Wide Web

[www.chauvetlighting.com](http://www.chauvetlighting.com)

### United Kingdom & Ireland

CHAUVET® Europe Ltd.

#### General Information

Address: Unit 1C  
Brookhill Road Industrial Estate  
Pinxton, Nottingham, UK  
NG16 6NT  
Voice: +44 (0)1773 511115  
Fax: +44 (0)1773 511110

#### Technical Support

Email: [uktech@chauvetlighting.com](mailto:uktech@chauvetlighting.com)

#### World Wide Web

[www.chauvetlighting.co.uk](http://www.chauvetlighting.co.uk)

---

## DMX Primer

The USITT DMX512-A data transmission protocol (DMX, from now on) is based on the EIA-485 standard and it has 512 channels (001 to 512). This system requires a controller (DMX controller), one or more DMX compatible fixtures, and a DMX circuit (also known as “DMX universe”) to link the fixtures to the controller.

Depending on their complexity and features, DMX compatible fixtures may require from one to more than 30 DMX channels to operate. Some DMX fixtures have multiple operation modes (also known as “personalities”), each with its own number of channels and controllable parameters.

### Starting Address

In the DMX system, the controller sends DMX data to each fixture based on the fixture's starting address. The starting address is the number of the DMX channel (001 to 512) assigned to the fixture's first control channel (Channel 1). When assigning starting addresses to multiple fixtures, it is critical to ensure that no starting address is already in use by another fixture to prevent channels from overlapping. Otherwise, the affected fixtures may operate erratically.

For instance, a user has two DMX compatible fixtures. Fixture “A” has four channels and fixture “B” has six channels. If the user configures the starting address of fixture “A” to “001”, channels 001 through 004 on the DMX controller will control fixture “A”. This means that the user should assign the starting address of fixture “B” to “005” or higher. For a starting address of “005”, the DMX controller would use channels 005 to 010 to control fixture “B”.

It is possible to control multiple fixtures of the same type by assigning each one of them the same starting address. In this case, all the fixtures would respond in unison (synchronized) to the signals from the DMX controller.

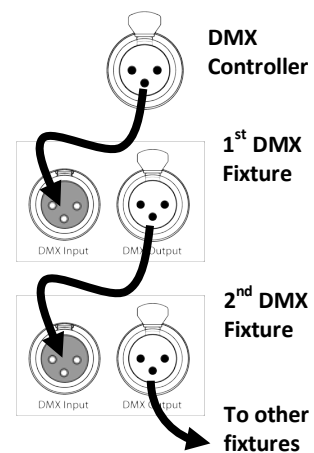
### Fixture Linking (Daisy Chain)

DMX compatible fixtures receive the control signals from the DMX controller through the DMX cables. Each fixture has a DMX In and a DMX Out connector. The figure to the right illustrates how the fixtures link to each other using multiple segments of DMX cable in a sequential format called “daisy chain”.

The order in which the fixtures connect to the DMX controller is irrelevant because all fixtures receive the same DMX signals and they only respond to them based on their individual starting addresses. However, it is important to notice that the connections between fixtures should always be as short and direct as possible.

To ensure the integrity of the DMX signal, follow the recommendations of the EIA-485 standard:

- The maximum recommended cable length is 500 m (1,640 feet).
- The maximum recommended number of fixtures on the same daisy chain is 32.



**Connecting more than 32 fixtures on one daisy chain without the use of a DMX optically-isolated splitter may result in deterioration of the digital DMX signal.**

## DMX Cabling

The DMX protocol requires using special data cables to accommodate for the high speed digital signals it uses. Despite their apparent similarities, data cables are electrically different from standard microphone cables because they can carry high frequency digital signals and have better protection against electromagnetic interference. You can purchase CHAUVET® certified DMX cables directly from a dealer/distributor or make your own DMX cable.

If you choose to make your own DMX cable, you must use a data-grade cable such as the Belden 9841, which has the following electrical characteristics:

Type:	shielded, 2-conductor twisted pair
Maximum capacitance between conductors:	30 pF/ft
Maximum capacitance between conductor and shield:	55 pF/ft
Maximum resistance:	20 ohms/1000 ft
Nominal impedance:	100~140 ohms

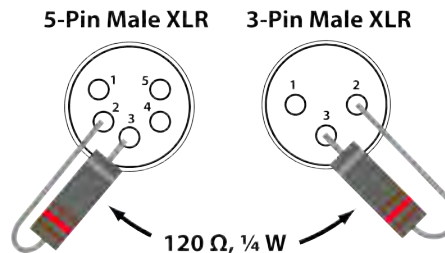
### DMX Connectors

Each DMX cable must have a male XLR connector on one end and a female XLR connector on the other end. The DMX protocol indicates that the XLR connectors must have five pins. However, most lighting fixtures use the 3-pin XLR connector. The pin assignment of the 3-pin and 5-pin XLR connectors in a DMX cable is as follows:

Male Plug					Female Plug		
Signal	3-Pin	5-Pin			5-Pin	3-Pin	Signal
Common	1	1			1	1	Common
Data -	2	2			2	2	Data -
Data +	3	3			3	3	Data +
Not used		4			4		Not used
Not used		5			5		Not used

You can use the above table to create a 3-pin/3-pin cable, a 5-pin/5-pin cable, or a 3-pin to 5-pin adapter.

The DMX daisy chain uses a terminator to reduce signal transmission problems, especially with long cables. The terminator consists of either a 3-pin or 5-pin XLR male plug with a 120  $\Omega$ , ¼ W resistor connected to the wire side of pins 2 and 3, as shown below.



The terminator plug connects to the DMX Out socket of the last DMX fixture in the daisy chain.



**Do not allow the common wire of the DMX cable to touch the fixture's chassis ground. This could cause a ground loop, which may affect your fixtures' performance. Test all DMX cables with an ohmmeter to verify the correct polarity of the wires, and to make sure that they are not touching the shield or each other.**

## 6. TECHNICAL SPECIFICATIONS

### Dimensions and Weight

Length	Width	Height	Weight
13.2 in (335 mm)	6.6 in (168 mm)	14.5 in (368 mm)	7.5 lbs (3.4 kg)

**Note:** Dimensions in inches rounded to the nearest decimal digit.

### Power

Power Supply Type	Range	Voltage Selection
Switching (internal)	100~240 V, 50/60 Hz	Auto-ranging
Parameter	120 V, 60 Hz	230 V, 50 Hz
Consumption	68 W	67 W
Operating	1 A	0.5 A
Power linking	8 units	
Power I/O	US/Worldwide	UK/Europe
Power input connector	IEC	IEC
Power output connector	Edison	
Power Cord plug	Edison (US)	Local plug

### Light Source

Type	Power	Lifespan
White LED	1 x 18 W	50,000 hours

### Photo Optic

Parameter	Standard Lens
Illuminance @ 1 m	9,000 lx
Beam angle	15°

### Scan Range

Parameter	Value
Pan	180°
Tilt	90°

### Thermal

Maximum External Temp.	Cooling System
104° F (40° C)	Fan

### DMX

I/O Connectors	Connector Type	Channel Range
3-pin XLR	Sockets	5, 8

### Ordering

Product Name	Item Code	Item Number
Intimidator™ Scan LED 200	08020174	INTIMIDATORSCANLED200

